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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/509,350

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Saurabh S. Lawate

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The Lubrizol Corporation
Patent Dept./Mail Drop 022B
29400 Lakeland Blvd.
Wickliffe, OH 44092-2298

EXAMINER

RONESI, VICKEY M

ART UNIT

PAPER NUMBER

1796

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/509,350	Applicant(s) LAWATE ET AL.	
	Examiner VICKY RONESI	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/28/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Information Disclosure Statement

1. The Information Disclosure Statement (IDS) filed on 9/28/2004 has been considered, however, the corresponding WO document listed under non-patent literature has been struck because it is not prior art. Rather, it is the parent WO international publication for this National Stage application.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: reference number **46** on page 5, line 28 is not in Figure 1. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: reference number **45** is not mentioned in the specification. Corrected drawing sheets in compliance with 37 CFR

Art Unit: 1796

1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities: figures such as the graphs on page 8 should not be presented in the body of the specification. Rather, they are to be placed with the other drawings.

Appropriate correction is required.

Claim Objections

5. Claims 1 and 5-7 are objected to because of the following reasons:

With respect to claim 1, before step (e) the word --and-- should be inserted to indicate that all of the steps are mandatorily present.

With respect to claim 1, 6, and 7, the use of parentheses is confusing because it is not made clear whether the text in the parentheses should be given any weight as claim limitations.

With respect to claim 5, the term --at least-- should be inserted before “30 minutes” to indicate that the time frame is a range of time greater than and including 30 minutes. Support for this is found on page 7, line 4 of the specification.

With respect to claim 6, the term “the colloidal silica” lacks full antecedent basis because antecedent basis is only had for “the colloidal particle” from claim 1. Because it is clear to what “the colloidal silica” refers, a 35 USC 112, 2nd paragraph rejection has not been made.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 1, in part (c) it is not made clear if the phrase “at least a rotor and stator mixer and one other mixer” means that both a rotor-stator mixer and another mixer or at least one rotor-stator mixer and another mixer.

With respect to claims 2-6, they are rejected for being dependent on a rejected claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 1796

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claim 7 is rejected under 35 U.S.C. 102(b) as being anticipated by Wichelhaus (US 4,757,100).

Wichelhaus exemplifies a composition comprising α -olefin polymer, mineral oil, silica, and antioxidant (col. 6, lines 23-30). In col. 5, lines 65-66, Wichelhaus discloses that all of the examples contain up to 25 wt % antioxidants.

In light of the above, it is clear that Wichelhaus anticipates the presently cited claims.

Claim Rejections - 35 USC § 102/103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wichelhaus (US 4,757,100).

The discussion with respect to Wichelhaus in paragraph 7 above is incorporated here by reference.

It is noted that claim 7 is a product-by-process claim and therefore “even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

In light of the above, it is clear that Wichelhaus anticipates the presently cited claim.

Alternatively, in the event any differences can be shown for the product of the product-by-process claim, as opposed to the product taught by Wichelhaus, such differences would have been obvious to one of ordinary skill in the art as a routine modification of the product in the absence of a showing of unexpected results. As a practical matter, the Patent Office is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make physical comparisons therewith.” *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972).

Claim Rejections - 35 USC § 103

9. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wichelhaus (US 4,575,100) in view of Muller (US 4,967,929).

Wichelhaus discloses a filling composition comprising a hydrocarbon oil, an organic polymer, and silica (col. 6, lines 23-48), wherein the examples all contain up to 25 wt % antioxidants (col. 5, lines 65-66). The composition is prepared by forming a solution

Art Unit: 1796

("dissolved," col. 6, line 24) of mineral oil and α -olefin polymer at 130°C and then cooling down to 50°C before mixing with silica.

Wichelhaus fails to disclose (i) that the antioxidant is added after the blend is cooled, (ii) that the composition is prepared with a rotor-stator mixer and other mixers such as an anchor and emulsifying mixers, and (iii) that the oil and polymer should be heated at 130°C for at least 30 minutes..

With respect to (i), given that Wichelhaus teaches decreasing the temperature after forming the solution of oil and polymer before adding the other ingredients, it would have been obvious to one of ordinary skill in the art at the time of invention to add the antioxidant after cooling, absent a showing of unexpected or surprising results. Case law holds that the selection of any order of mixing ingredients is *prima facie* obvious. *In re Gibson*, 39 F.2d 975, 5 USPQ 230 (CCPA 1930).

With respect to (ii), Wichelhaus teaches that the filling composition is prepared using any effective but non-damaging mixing units (col. 6, lines 3-6).

Muller teaches that a common type of mixer in many applications is a mixer with a combination of agitators (i.e., rotor-stator mixer), wherein the mixer can include a high speed mixer-emulsifier, a high speed disperser, and a standard anchor agitator (col. 1, lines 14-38).

Given that Wichelhaus is open to various mixing processes and further given that a rotor-stator mixer taught by Muller is common in mixing as taught by Muller, it would have been obvious to one of ordinary skill at the time of the invention to mix the filling composition of Wichelhaus with a rotor-stator mixer like taught by Muller in order to obtain a properly mixed filling composition.

With respect to (iii), it is the examiner's position that time needed to ensure that the oil and polymer form a solution is result effective variable because changing the time at which the polymer and oil and heated to 130°C will clearly affect dissolution of the polymer into the oil. See MPEP § 2144.05 (B). Case law holds that "discovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art." See *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

In view of this, it would have been obvious to one of ordinary skill in the art to utilize appropriate time, including that within the scope of the present claims so as to produce desired end results, i.e., a solution of polymer and oil.

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wichelhaus (US 4,575,100) in view of Muller (US 4,697,929) and further in view of Knox, Jr (US 4,813,617).

The discussion with respect to Wichelhaus and Muller in paragraph 9 above is incorporated here by reference.

Neither Wichelhaus nor Muller teaches that a suction device or tube is used to direct colloidal silica to an area near the inlet of the rotor-stator mixer.

Even so, it is the examiner's position that it would have been obvious to one ordinary skill in the art to the time of the invention to direct the silica particles to the inlet of the rotor-stator mixer where the mixing is most rigorous in order to promote faster mixing. Evidence to support the examiner's position is found in Knox, Jr. which rotor-stator mixer and teaches that a tubular extension is used to add fluid additives to effect preliminary mixing (col. 2, lines 55-66).

Given that supplying silica additive to the inlet of the rotor-stator mixer promotes mixing as taught by Knox, Jr, it would have been obvious to one of ordinary skill in the art to utilize add silica additive like presently claimed to effect early mixing.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claim 7 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 20 of copending Application No. 10/544276 (published as US PGPub 2006/0264559). Although the conflicting claims are not identical, they are not patentably distinct from each other because of the reasons given below.

US appl. ‘276 claims a jelly composition comprising an oil, silica, antioxidant, and a coupling agent having a molecular weight of less than 2000 which reads on the presently claimed high molecular weight polymer. Note that a high molecular weight polymer is a polymer having

Art Unit: 1796

an average molecular weight of 1000 and above as described in the instant specification on page 3, line 9. Therefore, the scope of claim 20 of US app. '276 substantially overlaps in scope with instant claim 7, and it would have been obvious to one of ordinary skill in the art to obtain the presently claimed gel composition from US appl. '276.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

12. Claim 7 is directed to an invention not patentably distinct from claim 20 of commonly assigned copending Application No. 10/544276 (published as US PGPub 2006/0264559). Specifically, see the discussion set forth in paragraph 11 above.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned copending Application No. 10/544276 (published as US PGPub 2006/0264559), discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly

Art Unit: 1796

assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

Conclusion

13. The cited references on the International Search Report for PCT/US03/08912 have been considered but have not have used in the prior art rejections because US 6,160,939 and US 5,505,773 are cumulative to the composition claims and fail to disclose steps of cooling the blend before adding remaining ingredients.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Ronesi whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/509,350
Art Unit: 1796

Page 12

5/7/2008
Vickey Ronesi

/Vickey Ronesi/
Examiner, Art Unit 1796